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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC - 6 2000

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Ms. Rhonda M. Mannion
Monsanto Company
600 13th Street, NW, Suite 660
Washington, DC 20005

Dear Ms. Mannion:

Subject: Semptra CA Herbicide (Revise First Aid Statement and Directions for Use for Tree Crops)
EPA Registration No. 524-524
Your Application Dated October 20, 2000

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provided you make the following changes.

1. "Rice" must be removed from the list of crops on page one.
2. The following statements must be added to your First Aid Statement.

IF IN EYES: Hold eye open and rinse slowly and gently for 15 to 20 minutes. Remove contact lenses if present, after the first five (5) minutes, then continue rinsing eye. Call a poison control center or doctor for treatment.

3. On page 8 under Crop Recommendations the statement "Established nut crop trees are defined as those that have been transplanted into their final growing location for a period of at least 12 months and where the soil to be firmly settled around the roots from packing and rainfall or irrigation." needs to be revised.

Please submit three (3) copies of your final printed labeling bearing the above changes. The amended labeling supercedes are previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

James A. Tompkins
James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505C)

Sempra® CA Herbicide

Complete Directions For Use Pamphlet

2/25
ACCEPTED
with comments
DEC - 6 2000
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 524-524

EPA Reg. No. 524524

Sempra CA is a selective herbicide for postemergence control of listed broadleaf weeds and nutsedge in field corn, field corn grown for seed, grain sorghum (milo), sweet corn, popcorn, fallow ground, rice, turfgrass sod & seed farms, and tree nuts (Almonds, Beechnuts, Brazil nuts, Butternuts, Cashews, Chestnuts, Chinquapins, Filberts, Hickory nuts, Macadamia nuts, Pecans, Pistachios, Walnuts {Black and English}).

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Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION OR REPACKAGING.

ACTIVE INGREDIENT:

*Halosulfuron-methyl75.0%

OTHER INGREDIENTS:..... 25.0%
100.0%

* Manufactured by Nissan Chemical Industries, Ltd.
Product is protected by U.S. Patent No. 4,668,277.

PRECAUTIONARY STATEMENTS

Hazards to Humans
and Domestic Animals

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Keep out of reach of children.

CAUTION!

CAUSES EYE IRRITATION.
HARMFUL IF SWALLOWED.

Avoid contact with eyes or clothing.

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none">• Call poison control center or doctor immediately for treatment advice.• Remove visible particles from mouth.• Have person rinse mouth thoroughly with water, spit out rinse water.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may call collect (314) 694-4000, day or night, for emergency medical treatment information.	

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

In case of emergency involving this product,
Call Collect, day or night, (314) 694-4000.

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Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the ground water is shallow, may result in ground water contamination.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves and shoes plus socks.

For more product information, call toll-free 1-800-332-3111.

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: Store under cool, dry conditions (below 120° F). Do not store under moist conditions.

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DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed. Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or by burning, if allowed by state and local authorities. If burned, stay out of smoke.

Disposal authorities: If none of the foregoing procedures is permitted by state and local authorities, then contact your State Pesticide or Environmental Control Agency, or your local Hazardous Waste Disposal office, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

GENERAL INFORMATION

Biological Information

The level of weed control following Semptra CA herbicide application is dependent upon application rate, weed species and size at application time, and growing conditions. For best results, applications should be made to actively growing weeds at the heights defined in the "USE RATE GUIDE" sections of this label. Heavy infestations should be treated early before the weeds become too competitive with the crop. When early postemergence treatments are used, sequential applications may be required to control later weed flushes.

Soon after Semptra CA herbicide is applied, growth of susceptible weeds is inhibited, and susceptible weeds are no longer competitive with the crop. Following growth inhibition, the leaves and growing point begin to discolor. Complete control typically occurs within 7-14 days depending on the weed size, species and growing conditions.

APPLICATION EQUIPMENT AND INSTRUCTIONS

Applications may be made by ground equipment to healthy, actively growing weeds. For best results, avoid applications when weeds are under drought stress, disease, or insect damage. Rainfall or irrigation occurring within 4 hours after application may also reduce effectiveness.

Ground Applications:

Apply Semptra CA herbicide uniformly with properly calibrated ground equipment in 10 or more gallons of water per acre. Other water based spray carriers may be used for directed applications, avoiding contact with crop foliage. Select spray volumes that ensure thorough and uniform weed coverage. Choose nozzles which provide optimum spray distribution and coverage at the appropriate pressure (psi). Use only ground application equipment. Thoroughly clean equipment prior to mixing spray solution. Avoid streaking, skips, overlaps, and spray drift during applications.

Do not apply this product through any type of irrigation system.

Avoid disturbing (e.g. cultivation) treated areas for at least 7 days following application.

Sensitive areas: Pesticides should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Thoroughly clean application equipment immediately after Sempra CA herbicide use and prior to spraying a crop other than corn or grain sorghum. Prepare a tank cleaning solution which consists of a 1 percent solution of household ammonia (one quart of ammonia for every 25 gallons of water). Use sufficient cleaning solution to thoroughly rinse all surfaces and to flush all hoses. Repeat the procedure with the ammonia solution. Complete the cleaning process by rinsing with clean water.

MIXING INSTRUCTIONS

Fill the spray tank to about three-fourths of the desired volume with water or carrier. Add the recommended amount of this product as listed in the "WEEDS CONTROLLED" sections. Complete the filling process while maintaining agitation. Remove the hose from the mixing tank immediately after filling to avoid siphoning back into the carrier source. Add non-ionic surfactant and other adjuvants as the last ingredients in the tank.

Spray solutions should be applied within 24 hours after mixing.

Adjuvants: A **nonionic surfactant (NIS)** is the only adjuvant required in the spray solution. Use only nonionic surfactants which are approved by EPA for use on food crops and which contain at least 80 percent active ingredient. Use 0.25 to 0.5 percent nonionic surfactant concentration (1 to 2 quarts per 100 gallons of spray solution).

Crop oil concentrate (COC) may be used with Sempra CA herbicide **instead of** nonionic surfactants. Do not use both NIS and COC in the spray mixture. Add COC to the spray mixture at 1% vol./vol. (1 gallon per 100 gallons of spray mixture). Use only good quality petroleum- or vegetable-based crop oil concentrates which contain at least 14 percent emulsifiers.

Nonionic surfactant **OR** COC are the only additives necessary for Sempra CA herbicide applications. Liquid nitrogen fertilizer solution (e.g., 28-0-0) may be added to the spray solution to improve the control of certain species, particularly if Sempra CA herbicide is being tank mixed with a companion herbicide which requires use of a liquid nitrogen additive. However, a nonionic surfactant **OR** COC will still be necessary. Refer to the companion product label for specific additive requirements. Otherwise, add liquid nitrogen fertilizer at a rate of 2 to 4 quarts per acre. Do not use liquid nitrogen fertilizer solutions or suspensions as the total carrier because excessive crop injury may occur. A high quality, spray grade ammonium sulfate (e.g. 21-0-0) may be applied at a rate of 2 to 4 pound per acre in place of the liquid nitrogen fertilizer.

CROP RECOMMENDATIONS

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TREE NUTS (ALMONDS, BEECHNUTS, BRAZIL NUTS, BUTTERNUTS, CASHEWS, CHESTNUTS, CHINQUAPINS, FILBERTS, HICKORY NUTS, MACADAMIA NUTS, PECANS, PISTACHIOS, WALNUTS (BLACK AND ENGLISH))

Growth Stage: Sempra CA herbicide may be applied as a directed spray to established plantings of nut crop trees. Established nut crop trees are defined as those that have been transplanted into their final growing location for a period of at least 12 months and where the soil to be firmly settled around the roots from packing and rainfall or irrigation.

Extreme care must be exercised to avoid contact of spray containing Sempra CA herbicide with trunk, stems, roots, or foliage of nut crop trees or severe damage or death may result. Recommended rates are based on broadcast treatment. For band applications, reduce the broadcast rate of Sempra CA herbicide in proportion to the area actually sprayed. For all applications, adjust the rate of Sempra CA herbicide to account for high volume output nozzles, such as off-center nozzles, and overlaps in the spray pattern. Use of controlled droplet application, spot application, irrigation, or chemigation equipment for application of this product is not recommended due to variations in the actual application rate. Excessive application rates can result in severe tree injury or death.

Apply 2/3 to 1 1/3 ounces by weight (0.032 to 0.063 pound active ingredient) of Sempra CA herbicide per acre. Use a maximum of 1 ounce by weight (0.046 pound active ingredient) Sempra CA herbicide per acre on coarse textured soils classified as sands, loamy sands, and sandy loams with less than 18% clay and more than 65% sand, or on soils with less than 1/2% organic matter. Do not apply to gravelly soils. For the best results apply Sempra CA herbicide in the spring when nutsedge is not drought stressed and maximize the interval between application and subsequent irrigation.

Mechanical cultivation or mowing may be required to control weed species not on the Sempra CA herbicide label. If so, a **sequential treatment** may be required to control weeds in areas of disturbed soil. Sempra CA herbicide may be applied up to 2 applications with a total of all applications not to exceed 2 2/3 ounces of product by weight (0.125 pound active ingredient) per acre per use season. On coarse textured soils classified as sands, loamy sands, and sandy loams with less than 18% clay and more than 65% sand, or on soils with less than 1/2% organic matter, Sempra CA herbicide may be applied up to 2 applications with a total of all applications not to exceed 2 ounces of product by weight (0.093 pound active ingredient) per acre per use season.

Do not apply Sempra CA herbicide within 1 day of harvest.

If Sempra CA herbicide is applied to trees that have been weakened by or recovering from stress caused by, but not limited to, excessive fertilizer or soil salts, disease, nematodes, frost, wind injury, drought, flooding, previously applied pesticides, insects, winter injury, soil pan of any type, nutrient deficiency, or mechanical damage, severe injury or death may occur. Application of Sempra CA herbicide to weakened or stressed trees as described, especially in soils with less

than 1/2% organic matter, significantly increases the probability of severe injury or death. All such risks shall be assumed by the user.

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Sempra CA herbicide may be applied at 2/3 to 1 1/3 ounces by weight per acre in combination with Roundup® Family Brand herbicides for control of emerged annual grasses, broadleaf weeds and nutsedge.

Also refer to the "ROTATIONAL CROP INFORMATION" section of this label for applicable rotational crop restrictions.

SWEET CORN AND POPCORN

Corn Growth Stage: When used alone, Sempra CA herbicide may be applied over-the-top or with drop nozzles from the spike through layby stage of the corn.

Apply 2/3 ounce by weight (0.032 pound active ingredient) of this product per acre broadcast over the top or with drop nozzles in sweet corn or popcorn. Mechanical cultivation may be required to control weed species not on the Sempra CA herbicide label. Avoid cultivation for at least 7 days following application. If necessary, a **sequential treatment** of this product at 2/3 ounce by weight per acre may be applied only with drop nozzles **semi-directed or directed** to avoid application into the corn plant whorl. No more than 2 applications of Sempra CA herbicide may be made per year in sweet corn or popcorn. (Any single application must not exceed 2/3 ounce by weight per acre).

Following application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage.

Sempra CA herbicide may be applied to sweet corn and popcorn, however, the user assumes responsibility for such use. All hybrids/varieties have not been tested for sensitivity to Sempra CA herbicide nor does Monsanto have access to all seed company or processor data. Consequently, any injury arising from the use of Sempra CA herbicide on sweet corn or popcorn is the responsibility of the user. Do not apply Sempra CA herbicide to sweet corn or popcorn unless the seed company, processor or State Agricultural Extension service has tested Sempra CA herbicide on the particular hybrid/variety and specifically approves and recommends the use. Do not apply Sempra CA herbicide to sweet corn or popcorn if the crop is under severe stress due to drought, water-saturated soils, low fertility (especially low nitrogen levels) or other poor growing conditions. Refer to the following "WEEDS CONTROLLED" section for use rate recommendations.

Also refer to the "ROTATIONAL CROP INFORMATION" section of this label for applicable rotational crop restrictions.

Sempra CA herbicide is not recommended for use on 'Jubilee' sweet corn.

Monsanto does not recommend application of Sempra CA herbicide to sweet corn or popcorn previously treated with soil applied organophosphate insecticides. Do not apply an organophosphate insecticide within 7 days before or 3 days after any Sempra CA herbicide application.

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**WEEDS CONTROLLED
SEMPRA CA HERBICIDE
SWEET CORN & POPCORN
USE RATE GUIDE**

Use Rate - 2/3 ounce of product by weight per acre
(0.032 pound active ingredient per acre)

Weed Species	Size Range Height (inches)
Cocklebur, common	1 to 9
Fleabane, Philadelphia	1 to 3
Kochia	1 to 3
Mallow, Venice	1 to 3
Passionflower, maypop	1 to 3
Pigweed, redroot	1 to 3
Pokeweed, common	1 to 6
Ragweed: common	1 to 9
giant	1 to 3
Smartweed, Pennsylvania	1 to 2
Sunflower, common	1 to 12
Velvetleaf	1 to 9

FIELD CORN AND FIELD CORN GROWN FOR SEED

Corn Growth Stage: When used alone, Sempra CA herbicide® can be applied over-the-top or with drop nozzles from the spike through layby stage of field corn.

Sempra CA herbicide may be applied up to 2 applications with a total application not to exceed 2 2/3 ounces of product by weight (0.125 pound active ingredient) per acre per use season.

Following application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage.

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**WEEDS CONTROLLED
SEMPRA CA HERBICIDE
FIELD CORN AND FIELD CORN GROWN FOR SEED
USE RATE GUIDE**

Use Rate - 1 to 1 1/3 ounces of product by weight per acre
(0.047 to 0.063 pound active ingredient per acre)

Weed Species	Size Range Height (inches)
Cocklebur, common	9 to 14
Mallow, Venice	4 to 12
Milkweed, honeyvine	1 to 6
Mustard, wild	4 to 6
Nutsedge: ¹	
yellow	4 to 12
purple	4 to 12
Pigweed, redroot ²	4 to 6
Radish, wild	4 to 6
Ragweed: common	9 to 12
giant	4 to 6
Sunflower, common	12 to 15
Velvetleaf ²	9 to 12

¹ Heavy infestations of nutsedge may require sequential applications. An earlier treatment may be required to prevent nutsedge from competing with the crop.

² For large velvetleaf and pigweed, the addition of liquid nitrogen fertilizer (2 to 4 quarts per acre) plus crop oil concentrate or nonionic surfactant is recommended.

WEEDS SUPPRESSED

Use Rate - 2/3 to 1 1/3 ounces of product by weight per acre
(0.032 to 0.063 pound active ingredient per acre)

Weed Species	ounces by weight per acre	
	2/3 ounce Height (in.)	1 to 1 1/3 ounces Height (in.)
Burcucumber	1 to 3	4 to 12
Kochia	*	3 to 6
Lambsquarters, common	1 to 2	---
Milkweed, common	3 to 5	6 to 12
Milkweed, honeyvine	1 to 3	---
Morningglory	---	1 to 3
Nutsedge: yellow	4 to 12	*
purple	4 to 12	*

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Refer to "WEEDS CONTROLLED" section of this label.

Also refer to the "ROTATIONAL CROP INFORMATION" section of this label for applicable rotational crop restrictions.

Grain Sorghum (Milo)

Grain Sorghum Growth Stage: Sempra CA herbicide, alone, can be applied from the 2-leaf through layby stage (before grain head emergence).

Only apply Sempra CA herbicide in a single application with the total application rate not to exceed 1.0 ounce of product by weight (0.047 pound active ingredient) per acre per use season.

Temporary stature reduction may occur to the crop following application of Sempra CA herbicide if the grain sorghum is under stress. This effect will be most evident 7-10 days after application. The crop will quickly recover under normal growing conditions.

Following application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage.

WEEDS CONTROLLED SEMPRA CA HERBICIDE SORGHUM USE RATE GUIDE

Use Rate - 2/3 ounce of product by weight per acre
(0.032 pound active ingredient per acre)

Weed Species	Size Range Height (inches)
Cocklebur, common	1 to 9
Fleabane, Philadelphia	1 to 3
Kochia	1 to 3
Mallow, Venice	1 to 3
Passionflower, maypop	1 to 3
Pigweed, redroot	1 to 3
Pokeweed, common	1 to 6
Ragweed: common	1 to 9
giant	1 to 3
Smartweed, Pennsylvania	1 to 2
Sunflower, common	1 to 12
Velvetleaf	1 to 9

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Use Rate - 1.0 ounce of product by weight per acre
(0.047 pound active ingredient per acre)

Nutsedge: yellow	4 to 12
purple	4 to 12

WEEDS SUPPRESSED

Use Rate - 2/3 ounce of product by weight per acre
(0.032 pound active ingredient per acre)

Weed Species	Size Range Height (inches)
Burcucumber	1 to 3
Lambsquarters, common	1 to 2
Milkweed, common	3 to 5
Milkweed, honeyvine	1 to 3
Nutsedge: yellow	4 to 12
purple	4 to 12

Also refer to the "ROTATIONAL CROP INFORMATION" section of this label for applicable rotational crop restrictions.

APPLICATIONS TO FALLOW GROUND

Applications of Sempra CA herbicide may be made to fallow ground at use rates ranging between 2/3 to 1 1/3 ounces of product by weight per acre. Sempra CA herbicide may be applied up to 2 applications with a total application not to exceed 2 2/3 ounces of product by weight (0.125 pound active ingredient) per acre per use season.

Refer to the "FIELD CORN" section of this label for weed control recommendations. Also refer to the "ROTATIONAL CROP INFORMATION" section of this label for applicable rotational crop restrictions.

TANK MIXTURES

Before mixing in the spray tank, it is recommended that compatibility be tested by mixing all components in a small container in proportionate quantities as listed below. For tank mixtures, add individual formulations to the spray tank in the following sequence: water soluble bags, dry flowables, emulsifiable concentrates, drift control additive, water soluble liquids followed by nonionic surfactant.

Tank mixtures should not be applied if the crop is under severe stress due to drought, water-saturated soils, poor fertility (especially low nitrogen levels), hail,

frost, insects or when the maximum daytime temperature is above 92°F. Tank mix applications under these conditions may cause temporary crop injury.

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Ensure that spray equipment is set up to avoid applying an excessive rate directly over the rows and into the whorl of the cornstalk. To insure good spray coverage of weeds and to reduce the risk of spraying directly into the whorl, tank-mix applications made after corn is 24 inches tall should be directed or semi-directed using drop nozzles.

TANK MIXTURES CORN

SEMPRA CA HERBICIDE® Tank-Mixture Options in Field Corn & Seed Corn

Tank Mix Partners	Rate per Acre	Additives	Application Method	Comments
Banvel™ or Clarity™	2 to 8 fl ounces	NIS	<ul style="list-style-type: none"> Broadcast up to 36" tall corn. Use lower Banvel rates or directed sprays on corn taller than 8". 	<ul style="list-style-type: none"> COC may cause crop injury, especially with higher Banvel/Clarity rates. For large corn, avoid direct spraying into whorl of cornstalk.
Marksman™	1/2 to 2 pints	NIS	<ul style="list-style-type: none"> Broadcast up to 8" tall corn. 	<ul style="list-style-type: none"> COC may cause crop injury.
2,4-D (4 pound/gal)	4 to 8 fl ounces	NIS	<ul style="list-style-type: none"> Broadcast up to 8" tall corn. 	<ul style="list-style-type: none"> If corn exceeds 8", directed sprays with drop nozzles are required.
Buctril™	1/2 to 1 pint	NIS	<ul style="list-style-type: none"> Broadcast to corn up to tassel emergence. 	<ul style="list-style-type: none"> Leaf burn may occur. COC or 28% may cause additional leaf burn.
BUCTRIL+atrazine	1 to 2 1/2 pints	NIS	<ul style="list-style-type: none"> Broadcast to corn up to 12" tall. 	<ul style="list-style-type: none"> Leaf burn may occur. COC or 28% may cause additional leaf burn.
Atrazine 4L	1 1/2 to 3 pints	COC	<ul style="list-style-type: none"> Broadcast to corn up to 12" tall. 	<ul style="list-style-type: none"> Control is best when weeds are small. Effective for burndown of grass weed escapes. Antagonism may occur on larger broadleaf weeds.
Accent™	2/3 ounce	COC or NIS	<ul style="list-style-type: none"> Broadcast or apply with drop nozzles to corn up to 24" tall. For corn 24 to 36" tall, apply with drop nozzles only. 	<ul style="list-style-type: none"> Ammonium nitrogen fertilizer (e.g. 28%) is also recommended as an additive. Avoid spraying directly into whorls of larger cornstalks. Refer to Accent label for soil insecticide interaction information.
Beacon™	0.76 ounce 1/2 packet	COC or NIS	<ul style="list-style-type: none"> Broadcast or apply with drop nozzles to corn up to 20" tall. For corn 20" to pretassel, apply with drop nozzles only. 	<ul style="list-style-type: none"> Ammonium nitrogen fertilizer (e.g. 28%) is also recommended as an additive. Avoid spraying directly into whorls of larger corn. Refer to Beacon label for soil insecticide interaction restrictions. Consult your dealer, seed supplier, or Novartis representative for a list of susceptible hybrids.

NIS = Nonionic surfactant. COC = Crop oil concentrate.

Refer to "MIXING INSTRUCTIONS", "TANK MIXTURES" and "USE RATE GUIDES" sections of this label for detailed information.

Refer to the specific product labels and observe all precautions, mixing and application instructions for all products used in tank mixtures.

SEMPRA CA HERBICIDE® plus BANVEL™ plus NONIONIC SURFACTANT

SEMPRA CA HERBICIDE plus 2,4-D plus NONIONIC SURFACTANT

For the control of additional broadleaf weeds, Sempra CA herbicide may be applied in tank mixtures with Banvel or 2,4-D. Avoid spraying just after corn leaves unfold, as injury may occur. A Sempra CA herbicide tank mixture with 2,4-D may be applied during the period from corn emergence through the 5 leaf stage or 8 inches tall, whichever comes first. If corn exceeds 8 inches, directed spray applications with drop nozzles must be used for tank mixtures with 2,4-D.

A Sempra CA herbicide tank mixture with 2,4-D may be applied to grain sorghum when the crop is 6 to 15 inches tall. If sorghum exceeds 8 inches, use drop nozzles and keep the spray off foliage. Do not treat during the boot, flowering or dough stage.

A Sempra CA herbicide tank mixture with low rates of Banvel may be applied during the period beginning at corn emergence and continuing until corn is 36 inches in height. Applications should not be made when corn exceeds 36 inches or 15 days before tassel emergence, whichever comes first. Applications should not be made when grain sorghum exceeds 15 inches. Do not treat grain sorghum during the boot, flowering, or dough stage. Clarity™ or Marksman™ may be substituted in this tank mixture.

Refer to the labels for Banvel, 2,4-D, Clarity and Marksman products for label restrictions.

**SEMPRA CA HERBICIDE
USE RATE GUIDE**

**SEMPRA CA HERBICIDE plus BANVEL plus NONIONIC SURFACTANT
SEMPRA CA HERBICIDE plus 2,4-D plus NONIONIC SURFACTANT**

Sempra CA herbicide Use Rate - 2/3 ounce of product by weight per acre

Banvel Use Rate - 1/4 to 1/2 pint per acre

2,4-D Use Rate - 1/4 to 1/2 pint per acre

- (0.125 - 0.25 pound active ingredient per acre)

Weed Species	Size Range Height (inches)
Bindweed	1 to 6
Burcucumber ¹	4 to 12
Cocklebur, common	1 to 12
Dogbane, hemp ³	1 to 6
Horsenettle	1 to 8

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Jimsonweed	1 to 4
Kochia ¹	1 to 6
Lambsquarters, common ²	1 to 6
Mallow, Venice	1 to 3
Milkweed, common	1 to 6
Morningglory, ivyleaf	1 to 6
Morningglory, tall	1 to 6
Nightshade, black ¹	1 to 6
Pigweed, redroot	1 to 12
Pokeweed, common ¹	1 to 18
Ragweed: common	1 to 12
giant ¹	1 to 6
Smartweed, Pennsylvania	1 to 3
Sunflower, common	1 to 12
Thistle, Canada ¹	1 to 6
Velvetleaf	1 to 12

-
- ¹ Banvel tank mixture only.
 - ² A tank mixture of Sempra CA herbicide (2/3 ounce by weight per acre) plus Banvel at 2 fluid ounces per acre (1/8 pint per acre) is recommended for the control of common lambsquarters less than 4 inches in height.
 - ³ Provides suppression of this weed.

SEMPRA CA HERBICIDE® plus BUCTRIL™ plus NONIONIC SURFACTANT

Sempra CA herbicide may be applied in combination with Buctril or BUCTRIL + atrazine herbicides for postemergence control of many annual broadleaf weeds in corn and grain sorghum. Use 2/3 ounce of Sempra CA herbicide by weight plus surfactant in combination with 1/2 to 1 pint of Buctril and 1 to 2 1/2 pints of BUCTRIL + atrazine herbicide.

Refer to Buctril and BUCTRIL + atrazine labels for use instructions, weeds controlled and application restrictions.

SEMPRA CA HERBICIDE® plus ATRAZINE

Sempra CA herbicide may be applied in combination with atrazine for postemergence control of labeled broadleaf weeds. The addition of atrazine will also aid in the burndown and control of many grass weeds (1.5 inches or less) which have escaped preemergence herbicide treatments. Applications should be made when broadleaf weeds are small (3 inches or less).

Mixtures with atrazine may result in reduced control (antagonism) of larger broadleaf weeds. Use the labeled rate for Sempra CA Herbicide plus atrazine 4L at 1 1/2 to 3 pints per acre (0.75 to 1 1/2 pounds active ingredient per acre). The addition of crop oil concentrate (COC) is recommended for this mixture.

Refer to the atrazine 4L label for use instructions, additive requirements, weeds controlled and application restrictions.

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TANK MIXTURES
FIELD CORN AND SEED CORN ONLY
SEMPRA CA HERBICIDE® plus ACCENT™ plus NONIONIC SURFACTANT

SEMPRA CA HERBICIDE plus BEACON™ plus NONIONIC SURFACTANT

A tank mixture of Sempra CA herbicide plus Accent or Beacon may be used for the postemergence control of annual broadleaf weeds and annual grasses in corn only.

Sempra CA herbicide plus Accent may be applied over-the-top or with drop nozzles to field corn up to 24 inches tall (free standing). For corn 24 to 36 inches tall, refer to the Accent label for application restrictions. Sempra CA herbicide plus Beacon may be applied over-the-top or directed to field corn when corn height is between 4 and 20 inches tall. Drop nozzles are required with the Beacon mixture when corn is between 20 inches tall and tassel emergence. Banvel, Marksman, Clarity, Buctril or BUCTRIL + atrazine may also be added to these tank mixtures for improved control of certain weed species.

Refer to Accent and Beacon labels for use instructions and restrictions on corn varieties and insecticides.

SEMPRA CA HERBICIDE® HERBICIDE USE RATE GUIDE

SEMPRA CA HERBICIDE plus ACCENT plus NONIONIC SURFACTANT

SEMPRA CA HERBICIDE plus BEACON plus NONIONIC SURFACTANT

Sempra CA herbicide Use Rate - 2/3 to 1.0 ounce of product by weight per acre

Accent Use Rate - 2/3 ounce by weight per acre

Beacon Use Rate - 1/2 packet per treated acre

(0.76 ounce product per acre)

Broadleaves	Size Range Height (inches)
<hr/>	
Cocklebur, common	1 to 9
Fleabane, Philadelphia	1 to 3
Kochia	1 to 3
Mallow, Venice	1 to 3
Passionflower, maypop	1 to 3
Pigweed, redroot	1 to 3
Pokeweed, common	1 to 6
Ragweed: common	1 to 9
giant	1 to 3
Smartweed, Pennsylvania	1 to 2
Sunflower, common	1 to 12
Velvetleaf	1 to 9
<hr/>	

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Grasses	Size Range Height (inches)	
	Sempra CA + Accent	Sempra CA+ Beacon
Barnyardgrass	2 to 4	
Cupgrass, woolly	2 to 4	
Foxtails: giant, yellow, green, bristly	2 to 4	
Itchgrass	2 to 6	
Johnsongrass, rhizome	8 to 18	8 to 16
seedling	4 to 12	4 to 12
Millet, wild proso	1 to 4	
Oats, wild	2 to 4	
Panicum, browntop	1 to 3	
Panicum, fall	2 to 4	Less than 2
Panicum, Texas	1 to 3	
Quackgrass	4 to 10	4 to 8
Ryegrass, Italian	2 to 6	
Sandbur	1 to 3	
Shattercane	4 to 12	4 to 12
Signalgrass, broadleaf	1 to 2	
Sorghum-almum	4 to 12	4 to 12

SEMPRA CA HERBICIDE® plus ACCENT™ plus SOIL RESIDUALS

Micro-Tech® plus Sempra CA herbicide plus Accent, Partner® plus Sempra CA herbicide plus Accent or Lasso® plus Sempra CA herbicide plus Accent for early postemergence control of foxtails in field corn (including seed corn).

These tank mixtures will provide postemergence control of emerged foxtails as well as residual preemergence control or reduced competition of annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of the Micro-Tech, Partner and Lasso herbicide labels.

Apply these tank-mixtures to emerged foxtails less than 2 inches tall and to corn less than 5 inches tall. Include 28% nitrogen fertilizer at a rate of 4 gallons per 100 gallons of spray solution plus NIS at 1 quart per 100 gallons of spray solution in 15 to 30 gallons of water per acre. The addition of Banvel or Clarity at 2 ounces of product per acre is recommended to these mixtures to control emerged lambsquarters less than 4 inches tall.

RECOMMENDED RATES/ACRE:

Micro-Tech

or Lasso	or	Partner	Plus	Sempra CA	Plus	Accent
(Quarts)		(Pounds)		(Ounces)		(Ounces)

1.5 to 3.5

2.5 to 5.3

2/3

1/3 to 1/2

**SEMPRA CA HERBICIDE plus ROUNDUP® FAMILY BRAND HERBICIDES
plus NONIONIC SURFACTANT**

Sempra CA herbicide may be applied at 2/3 ounce by weight per acre in combination with Roundup Family Brand herbicides for preplant burndown of emerged annual grasses, broadleaf weeds and nutsedge with **Pioneer IR** corn hybrids only. **Pioneer IR** hybrids are required to ensure crop safety due to the preplant application. Banvel or 2,4-D may also be applied in this tank mixture for enhanced preplant burndown of broadleaf weeds.

Refer to the Roundup, Banvel and 2,4-D labels for use instructions, weeds controlled, and application restrictions.

SEMPRA CA HERBICIDE SOIL APPLICATIONS

When used exclusively with **Pioneer IR field corn hybrids**, Sempra CA herbicide may be soil applied at the rate of 1 1/3 to 2 ounces by weight per acre (0.063 to 0.094 pound of active ingredient per acre) for residual control of velvetleaf, common cocklebur, common lambsquarters, common ragweed, pigweed, smartweed, sunflower and other difficult to control weeds.

This product is recommended as an early preplant surface-applied, preplant incorporated, or preemergence treatment. Sempra CA herbicide offers effective broadleaf control across all tillage systems and is intended for use in tank mixtures with the following herbicides: **Harness®**, **Harness® Xtra**, **Micro-Tech®**, **Partner®**, **Dual™**, **Eradicane™**, **Sutan+™**, **Surpass™**, or **Frontier™**.

Refer to the labels for Harness, Harness Xtra, Micro-Tech, Partner, Dual, Eradicane, Sutan+, Surpass, and Frontier for use instructions, weeds controlled, and application restrictions.

TURFGRASS SOD AND SEED FARMS

Sempra CA herbicide is a selective herbicide for postemergence control of sedges such as purple and yellow nutsedge in sod or turf seed farms. This product will not injure nearby established ornamentals, trees and shrubs when used according to label directions.

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For postemergence control of purple or yellow nutsedge found in established turfgrass, apply 2/3 to 1 1/3 ounces by weight of this product per acre (0.031 to 0.062 pounds active ingredient per acre) after nutsedge has reached the 3 to 8 leaf stage of growth. Use the lower rate in light infestations and the higher rate in heavy infestations.

A second treatment may be required 6 to 10 weeks after the initial treatment. As a sequential treatment, when new purple or yellow nutsedge plants have reached the 3 to 8 leaf stage of growth, apply 2/3 to 1 1/3 ounces by weight of this product per acre (0.031 to 0.062 pounds active ingredient per acre). Use the lower rate in light infestations and the higher rate in heavy infestations. No more than 2 applications can be made with the total use rate not exceeding 0.125 pounds active ingredient per acre per use season.

Use 0.25 - 0.5 percent nonionic surfactant concentration (1-2 quarts per 100 gallons of spray solution) for broadcast applications. For high volume applications, DO NOT exceed 1 quart of surfactant per acre. Use only nonionic surfactants which contain at least 80 percent active material.

DO NOT exceed the recommended amount of surfactant due to the potential for turf injury at higher rates. Refer to the surfactant label and observe all precautions, mixing and application instructions.

When applied as directed under the conditions described, the following established turfgrasses are tolerant to application of this product:

Established Cool-Season Grasses

Bentgrass, creeping
Agrostis stolonifera

Fescue, fine
Festuca rubra

Bluegrass, Kentucky
Poa pratensis

Fescue, tall
Festuca arundinacea

Ryegrass, perennial
Lolium perenne

Established Warm-Season Grasses

Bahiagrass
Paspalum notatum

Seashore paspalum
Paspalum vaginatum

Bermudagrass
Cynodon dactylon

St. Augustinegrass
Stenotaphrum secundatum

Centipedegrass
Eremochloa ophiuroides

Zoysiagrass
Zoysia japonica

Kikuyugrass
Pennisetum clandestinum

Fallow Treatments in Turfgrass Seed and Sod Production Areas

This product may be used on fallow areas prior to establishing turfgrass plants. Allow 4 weeks between application and seeding or sodding of turfgrass.

Use Precautions

For optimum results, do not mow turf for 2 days before or 2 days after application.

This product is effective if no rainfall occurs within 3 hours, but best results are obtained with no rainfall or irrigation for at least 8 hours.

This product may be used on seeded, sodded, or sprigged turfgrass that is well established. Allow the turf to develop a good root system and uniform stand before application.

Avoid application of Semptra CA herbicide when turfgrass or nutsedge is under stress since turf injury and poor nutsedge control may result.

Do not apply as an over-the-top spray to desirable shrubs or trees.

TANK MIXTURES

This product may be applied in combination with other products that are registered for the same crop and application.

Refer to the companion product label for use instructions, additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions.

Before mixing in the spray tank, it is recommended that compatibility be tested by mixing all components in a small container in proportionate quantities as listed below. For tank mixtures, add individual formulations to the spray tank in the following sequence: water soluble bags, dry flowables, emulsifiable concentrates, drift control additive, water soluble liquids followed by nonionic surfactant.

Tank mixtures should not be applied if the crop is under severe stress due to drought, water-saturated soils, poor fertility (especially low nitrogen levels), hail, frost, insects or when the maximum daytime temperature is above 92°F. Tank mix applications under these conditions may cause temporary crop injury.

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**SEMPRA CA HERBICIDE
USE RATE GUIDE**

**SEMPRA CA HERBICIDE plus ROUNDUP® FAMILY BRAND HERBICIDES plus
NONIONIC SURFACTANT**

Sempre CA herbicide may be applied at 2/3 ounce by weight per acre in combination with Roundup Family Brand herbicides for preplant burndown of emerged annual grasses, broadleaf weeds and nutsedge. For **non-selective** control of all vegetation prior to turfgrass renovation.

Refer to the Roundup label for use instructions, weeds controlled, and application restrictions.

ROTATIONAL CROP INFORMATION

Labeled crops may be planted at specified time intervals following application of approved rates of Sempra CA herbicide. Use the time intervals listed below to determine the required time interval before planting.

**TIME INTERVAL BEFORE PLANTING
(Months after treatment with Sempra CA herbicide)**

Crop	Months
IR/IMR Field corn	0
Sugarcane	0
IT Field corn	1
Normal Field corn	1
Barley (winter)	2
Forage Grasses	2
Oats	2
Proso Millet	2
Rice	2
Rye (winter)	2
Seed corn	2
Sorghums	2
Spring cereal crops	2
Wheat (winter)	2
Popcorn, Sweet corn*	3
Cotton	4
Peanuts	6
Tomato (transplant)	8
Alfalfa	9
Clovers	9
Dry Beans	9
Field Peas	9
Peas	9

Potatoes	9
Cucumbers, Pumpkins, Squash	9
Snap Beans	9
Soybeans	9
Peppers	10
Eggplant	12
Radish	12
Cabbage	15
Canola	15
Carrot	15
Mint	15
Broccoli, Cauliflower,	
Collards	18
Leeks, Onions	18
Lettuce crops	18
Sunflowers	18
Sugarbeet (Michigan only)	21
Sugarbeet and Red Beet	24
Spinach	24
Sugarbeet	36
(ND, MN, Red River Valley)**	

* In-crop and preplant applications of Semptra CA herbicide to sweet corn and popcorn are based on application rates and timings specific for use in those crops. Rotational interval must be adhered to for planting subsequent sweet corn or popcorn crops after Semptra CA herbicide applications in sweet corn or popcorn crops that are lost, terminated or harvested.

**Also includes other regions where rainfall is sparse or irrigation is required.

Refer to individual product labels to determine rotational crop restrictions when tank mixtures are used.

APPENDIX

LIST OF COMMON AND SCIENTIFIC NAMES OF BROADLEAF WEEDS.

Bindweed, hedge
Calystegia sepium

Burcucumber
Sicyos angulatus

Cocklebur, common
Xanthium strumarium

Dogbane, hemp
Apocynum cannabinum

Fleabane, Philadelphia

Erigeron philadelphicus

Horsenettle

Solanum carolinense

Kyllinga, green

Kyllinga brevifolia

Kochia

Kochia scoparia

Jimsonweed

Datura stramonium

Lambsquarters, common

Chenopodium album

Mallow, Venice

Hibiscus trionum

Milkweed, common

Asclepias syriaca

Milkweed, honeyvine

Ampelamus albidus

Morningglory

Ipomoea spp.

Morningglory, ivyleaf

Ipomoea hederacea

Morningglory, tall

Ipomoea purpurea

Mustard, wild

Sinapis arvensis

Nutsedge, yellow

Cyperus esculentus

Nutsedge, purple

Cyperus rotundus

Passionflower, maypop

Passiflora incarnata

Pigweed, redroot

Amaranthus retroflexus

Pokeweed, common

Phytolacca americana

Radish, wild
Raphanus raphanistrum

Ragweed, common
Ambrosia artemisiifolia

Ragweed, giant
Ambrosia trifida

Smartweed, Pennsylvania
Polygonum pensylvanicum

Sunflower, common
Helianthus annuus

Velvetleaf
Abutilon theophrasti

Waterhemp, common
Amaranthus rudis

Waterhemp, tall
Amaranthus tuberculatus

LIMIT OF WARRANTY AND LIABILITY

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